



BILLING CODE 3510-DS-P

DEPARTMENT OF COMMERCE
International Trade Administration
UChicago Argonne, LLC
Notice of Decision on Applications
for Duty-Free Entry of Scientific Instruments

This is a decision pursuant to Section 6(c) of the Educational, Scientific, and Cultural Materials Importation Act of 1966 (Pub. L. 89-651, as amended by Pub. .106-36; 80 Stat. 897; 15 CFR part 301). Related records can be viewed between 8:30 A.M. and 5:00 P.M. in Room 3720, U.S. Department of Commerce, 14th and Constitution Ave, NW, Washington, D.C.

Docket Number: 12-033. Applicant: UChicago Argonne, LLC, Lemont, IL 60439. Instrument: Low-Temperature Scanning Tunneling Microscope System. Manufacturer: CreaTec, Germany. Intended Use: See notice at 77 FR 42483, July 19, 2012. Comments: None received. Decision: Approved. We know of no instruments of equivalent scientific value to the foreign instruments described below, for such purposes as

this is intended to be used, that was being manufactured in the United States at the time of its order. Reasons: The instrument will be used to investigate properties of materials and novel phenomena related to nanoscale science. This instrument is specialized for creating artificial nanoscale structures on an atom-by-atom basis using nascent atom manipulation techniques. The instrument will be used to investigate the amount of force required to move one atom on a materials surface while simultaneously measuring local electronic structural changes during atom movement. Requirements for this instrument include: simultaneous measurements of tunneling current and force signals at an atomic scale, STM scanner with q-Plus tuning fork type AFM set-up, single atom and single molecule manipulation capabilities, single atom/molecule tunneling spectroscopy, ultrahigh vacuum compatibility, bath cryostat with LHe hold time greater than 72 hours and a LN2 hold time greater than 72 hours, optical access at low temperature, at least 6 K substrate temperature should be achieved, maximum drift rate

at base temperature less than 0.2 nm/h, and a computer software allowing manipulation of individual atoms and molecules.

Gregory W. Campbell
Director
Subsidies Enforcement Office
Import Administration

August 24, 2012 _____
Date

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